

# EUROPEAN PATENT OFFICE

## Patent Abstracts of Japan

PUBLICATION NUMBER : 03022366  
PUBLICATION DATE : 30-01-91

APPLICATION DATE : 20-06-89  
APPLICATION NUMBER : 01155792

APPLICANT : RICOH CO LTD;

INVENTOR : KAHATA TOSHIYUKI;

INT.CL. : H01M 10/40 H01M 4/02

TITLE : SECONDARY BATTERY

ABSTRACT : PURPOSE: To concurrently obtain high energy density, high charging/discharging efficiency and a long life by using a mix dispersed with Li or Li alloy or Li- mixed metal in an ion conducting polymer material for a negative electrode.

CONSTITUTION: When lithium or lithium alloy or lithium-mixed metal is dispersed in an ion conducting polymer material, the surface of a negative electrode is not deteriorated, the active material of the negative electrode is dispersed, and the specific surface area is increased. The energy density, cycle life, and charging/discharging efficiency are improved, the negative electrode surface is not deteriorated, a large current can be extracted, and the generation of moss-shaped lithium or dendrites can be prevented.

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## **XP-002240980**

**AN - 1991-061138 [09]**

**AP - JP19890142900 19890607**

**CPY - XERF**

**DC - P82 P84 S06 W02**

**FS - GMPI;EPI**

**IC - G03B27/50 ; G03G15/04 ; H04N1/10**

**MC - S06-A03 W02-J01**

**PA - (XERF ) FUJI XEROX CO LTD**

**PN - JP3009383 A 19910117 DW199109 000pp**

**PR - JP19890142900 19890607**

**XIC - G03B-027/50 ; G03G-015/04 ; H04N-001/10**

**XP - N1991-047141**

**AB - JP03009383 Charging member has a surface layer including tin oxide particles.**

- **Pref. the vol resistivity of the surface layer is 10 power 6 - 10 power 12 ohm cm; the vol resistivity of the surface layer is higher than that of the lower layer kept into contact with the surface layer. The lower layer is pref. composed of metal e.g. Al, Fe and Cu, electrically conductive polymer e.g. polypyrrole, polyacetylene or polythiophene; and rubber in which the metal is dispersed for electrically conductive treatment. The member is obtd. by laminating the surface of the rubber and the insulating resin such as polycarbonate and polyester, with the metal or the other electrically conductive substance. The electrically conductive base used in the charging member is composed of iron, copper and stainless steel. The tin oxide particles used in the surface layer has less than 0.5 micron average size.**

- **USE/ADVANTAGE - The potential property can be stabilised, and leakage caused by the pin holes can be prevented. An image of high quality is formed at low temp. and low humidity. @(10pp Dwg.No.1,2/2)@**

**IW - READ PICTURE INFORMATION GENERATOR PICTURE PROJECT PLATE CONVEY APPARATUS OPERATE INFORMATION**

**IKW - READ PICTURE INFORMATION GENERATOR PICTURE PROJECT PLATE CONVEY APPARATUS OPERATE INFORMATION**

**NC - 001**

**OPD - 1989-06-07**

**ORD - 1991-01-17**

**PAW - (XERF ) FUJI XEROX CO LTD**

**TI - Reading out picture - has information generator and picture projection plate to convey appts. operation information Dwg 1/6**

**XP-002240981**

**AN - 2002-309128 [35]**

**AP - JP20010021681 20010130**

**CPY - SANN**

**DC - A26 A85 L03 S05 T01 V04 W01 X12**

**FS - CPI;EPI**

**IC - C08K9/04 ; C08L101/00 ; H05K9/00**

**MC - A04-D08 A09-A03 A12-E01A L03-G06**

**- S05-G02 T01-L02D V04-U01 W01-C01D3C X12-C04**

**PA - (SANN ) SANYO CHEM IND LTD**

**PN - JP2001291990 A 20011019 DW200235 H05K9/00 005pp**

**PR - JP20000022600 20000131**

**XA - C2002-089979**

**XIC - C08K-009/04 ; C08L-101/00 ; H05K-009/00**

**XP - N2002-242018**

**AB - JP2001291990 NOVELTY - The composite electroconductive particle contains an electroconductive metal particle coated with a conductive polymer which is polyaniline.**

**- DETAILED DESCRIPTION - An INDEPENDENT CLAIM is also included for electromagnetic shielding material.**

**- USE - For electromagnetic shielding material (claimed) for protecting the electronic machine from electromagnetic interference. The electromagnetic shielding material is used for electric equipment such as personal computer, mobile telephone and medical apparatus.**

**- ADVANTAGE - The composite electroconductive particle has excellent electromagnetic shielding property maintained for long-period of time, adhesion strength with base material.**

**- (Dwg.0/0)**

**IW - COMPOSITE ELECTROCONDUCTING PARTICLE ELECTROMAGNET SHIELD MATERIAL CONTAIN ELECTROCONDUCTING METAL PARTICLE COATING CONDUCTING POLYMER**

**IKW - COMPOSITE ELECTROCONDUCTING PARTICLE ELECTROMAGNET SHIELD MATERIAL CONTAIN ELECTROCONDUCTING METAL PARTICLE COATING CONDUCTING POLYMER**

**NC - 001**

**OPD - 2000-01-31**

**ORD - 2001-10-19**

**PAW - (SANN ) SANYO CHEM IND LTD**

**TI - Composite electroconductive particle for electromagnetic shielding materials, contains electroconductive metal particle coated with conductive polymer**

**A01 - [001] 018 ; P1127 P1105 H0293 D01 D19 D18 F07**

**- [002] 018 ; ND01 ; Q9999 Q9381 Q7330 ; Q9999 Q9449 Q8173 ; Q9999 Q7501 ; Q9999 Q8026 Q7987 ; Q9999 Q7114-R ; K9676-R ; K9712 K9676 ; K9552 K9483 ; B9999 B3281 B3190 ; B9999 B5301 B5298 B5276**